

vessel rests, exactly as the ambulacral vessel of the *Comatulæ* rests in the furrow of the arm-skeleton. *The ambulacral pieces hitherto absolutely characteristic of the class Stellerida are deficient in the Hymenodisci.* A few irregular calcareous trabeculæ uniting the lateral pieces of the arm-skeleton are their sole representatives in the neighbourhood of the mouth. It is to be noted that the characters furnished by the pedicellariæ have survived the characters furnished by the constitution of the ambulacral groove, which has hitherto been regarded as typical; and this is a confirmation of the value which I thought ought to be attached to the pedicellariæ in the classification of the starfishes when I proposed to substitute the indications furnished by them for those derived from the number of rows of ambulacral tubes, which had been depended on by Müller and Troschel. The absence of ambulacral pieces, and of calcareous pieces covering the groove on the oral surface of the arms, does not allow us to compare the organization of the arms of *Hymenodiscus* except to that of the arms of the *Comatulæ*. The contrast between the arms and the disk, and the probable absence of genital glands and digestive cæca from the arms, on the other hand, approximate the *Hymenodisci* to the Ophiuri; by the absence of ambulacral pieces, and consequently of buccal pieces, they depart from all known Stellerida; their pedicellariæ, however, indicate that they constitute an aberrant form of the division of the Astერიadæ, in which they take their place, but as a distinct family, by the side of *Labidiaster*, *Pedicellaster*, and *Brisinga*, which, like them, possess only two rows of ambulacral tubes. *Labidiaster* has a much greater number of arms; *Pedicellaster* has only five; the *Brisingæ* from eleven to twelve, but quite differently constructed. These latter animals, in fact, enter without any difficulty into the ordinary type of starfishes, of which the *Hymenodisci* constitute a form quite different from any thing hitherto known to us, and presenting the most exceptional characters.—*Comptes Rendus*, Aug. 30, 1880, p. 436.

*On Gastrosaccus spinifer.* By THOMAS R. R. STEBBING.

During the present month of August I have been successful in finding *Gastrosaccus spinifer* of both sexes at Whitby, in the sand at low water. I have also had the opportunity of seeing specimens and mountings of the species in Mr. Norman's very extensive collection of Crustacea. Mr. Norman has called my attention to the erroneous formation of the specific name *spiniferus*, which must of course be written *spinifer*. There can, I think, be no doubt whatever that the name *G. sanctus* must be confined to the species described by Sars under that title, as quite distinct from the present *G. spinifer* of Goës. At the same time, one of Mr. Norman's dissections, which agrees exactly with a subsequent one of my own, seems to show decidedly that the marsupial pouch is attached to the first pleopods, contrary to the criticism of Prof. G. O. Sars, who denies the attachment of the marsupium to the first pleon-segment. It may be further remarked that the number of spines on the telson and uropods appears to be subject to slight variations in different specimens.

Tunbridge Wells, Aug. 31, 1880.